

App. No. 10/757,829  
Office Action Dated June 8, 2006

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REMARKS

Favorable reconsideration is requested in view of the following remarks. Claim 17 has been added. Support for the new claim 18 can be found in Figure 1 and page 12, lines 3-8, of the specification. Claims 13-18 are pending in the application. Claims 14-16 are withdrawn. Applicants note that the Office Action Summary Sheet lists only claim 15-16 as withdrawn.

Claims 13 and 17 are rejected under 35 USC 102(b) as being anticipated by Tone et al. (US 4,523,122). Applicants respectfully traverse this rejection.

Claim 13 is directed to a method for manufacturing an acoustic matching member that includes at least two layers: a first layer made of a composite material of a porous member and a filling material supported by voids of the porous member, and a second layer made of the same material as the filling material in the first layer. Claim 13 requires filling the existing voids of the porous member with a fluid filling material. The volume of the filling material after solidification is not less than that of the voids of the porous member. Claim 13 also requires solidifying the fluid filling material inside the voids and the surplus fluid filling material.

Tone et al. fail to disclose or even suggest the method of claim 13. Tone et al. do not produce an acoustic matching member that includes a porous first layer whose voids are filled with a filling material and a second layer made of the same material as the filling material in the first layer. There is no indication in Tone et al. of one layer made of the same material that is the filling material inside voids of a porous member of another layer. Tone et al. thus also fail to disclose filling the existing voids of the porous member with a fluid filling material and solidifying the fluid filling material inside the voids of a porous member in a first layer and the surplus fluid filling material, which forms a second layer, as required by claim 13.

More specifically, the rejection seems to rely on the Fig. 4 embodiment of the reference. The alternative method of the Fig. 4 embodiment includes steps of mixing and dispersing thermally expansible microspheres composed of a spherical plastic shell and a low boiling hydrocarbon in a fluid thermosetting resin, and heating the mixture to expand the microspheres to a desired extent. See Tone et al., Fig. 4 and column 5, lines 45-66. This embodiment does not fill anything into the voids of a porous first layer as required by claim 13, as the voids are formed only after the microspheres are added to the fluid resin. Likewise, there is no disclosure of

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filling such voids with a fluid filling material that itself forms a second layer of the surplus of an acoustic matching member.

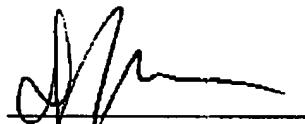
Fig. 12 of Tone et al. shows multiple layers, but the embodiment of Fig. 12 does not involve filling any porous layer with a filling material that also forms another layer. See Tone et al., column 10, lines 22-30.

For at least these reasons, claim 13 is patentable over Tone et al. Claim 17 depends from claim 13 and is patentable along with claim 13 and need not be separately distinguished at this time.

Reconsideration and withdrawal of the rejections are respectfully requested.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612) 455-3804.

Respectfully Submitted,



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